

Appl. No. 09/751,334  
Amdt. Dated 02/15/2004  
Reply to Office Action of 5/28/2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1           1-16. (Cancelled).

1           17. (Currently Amended) ~~In a wireless network system comprising a wired~~  
2 ~~backbone network, an access point, and one or more associated wireless units coupled to~~  
3 ~~the access point by way of a wireless transmission medium, a~~ method of wireless  
4 communication of enabling request to send (RTS) and clear to send (CTS) data transmission  
5 ~~in said one or more wireless units, comprising:~~  
6           transmitting a message to ~~said one or more wireless units, said message having~~  
7 including (i) a first control data that causes said one or more wireless units to implement  
8 enable request to send (RTS) and clear to send (RTS/CTS) data transmissions in transmitting  
9 data packets to said an access point, and (ii) a second control data that causes said one or  
10 more wireless units to automatically adjust a fragmentation threshold in response to changes  
11 within the wireless transmission medium independent of whether or not RTS/CTS data  
12 transmissions are used; and  
13           measuring a transmission error factor and continuing to adjusting the fragmentation  
14 threshold in accordance with said measured transmission error factor based on a measured  
15 transmission error factor.

1           18. (Original) The method of claim 17, wherein said message comprises a  
2 multicast data packet intended for said one or more associated wireless units.

1           19. (Currently Amended) The method of claim 17, wherein said ~~message further~~  
2 ~~includes a second control data of said message that causes said one or more wireless units to~~  
3 ~~implement fragmentation threshold in transmitting data packets to said access point includes~~  
4 a current fragmentation threshold being determined by the access point (i) comparing the  
5 transmission error factor to an upper threshold and reducing a prior fragmentation threshold  
6 to the current fragmentation threshold if the transmission error factor is greater than the upper  
7 threshold and (ii) comparing the transmission error factor to a lower threshold and increasing

Appl. No. 09/751,334  
Amdt. Dated 02/15/2004  
Reply to Office Action of 5/28/2004

8 the prior fragmentation threshold to the current fragmentation threshold if the transmission  
9 error factor is less than the lower threshold.

1           20. (Currently Amended) The method of claim 19, wherein the current  
2 fragmentation threshold is determined by dividing a maximum fragmentation threshold by a  
3 divisional factor, the divisional factor is decremented when the transmission error factor is  
4 greater than the upper threshold, is incremented when the transmission error factor is less  
5 than the lower threshold and remains constant when the transmission error factor is less than  
6 the upper threshold and greater than the lower threshold ~~said message further includes a~~  
7 ~~specified fragmentation threshold to be used by said one or more wireless units.~~

1           21. (Currently Amended) An access point having a logic circuit to transmit a  
2 message to one or more associated wireless unit, wherein said message includes (i) a first  
3 control data that causes said one or more associated wireless units to ~~implement enable~~  
4 request to send (RTS) and clear to send (RTS/CTS) data transmissions in transmitting data  
5 packets to said access point, and (ii) a second control data that causes said one or more  
6 associated wireless units to automatically adjust a fragmentation threshold in response to  
7 changes within the wireless transmission medium independent of whether or not RTS/CTS  
8 data transmissions are used, said logic circuit being operable to continue to adjust the  
9 fragmentation threshold through subsequent messages based on a measured transmission  
10 error factor.

1           22. (Original) The access point of claim 21, wherein said message comprises a  
2 multicast data packet intended for said one or more associated wireless units.

1           23. (Currently Amended) The access point of claim 21, wherein said message  
2 further includes ~~said a second control data that causes said one or more wireless units to~~  
3 ~~implement fragmentation threshold in transmitting data packets to said access point~~ includes  
4 a current fragmentation threshold being determined by the access point (i) comparing the  
5 transmission error factor to an upper threshold and reducing a prior fragmentation threshold  
6 to the current fragmentation threshold if the transmission error factor is greater than the upper  
7 threshold and (ii) comparing the transmission error factor to a lower threshold and increasing  
8 the prior fragmentation threshold to the current fragmentation threshold if the transmission  
9 error factor is less than the lower threshold.

Appl. No. 09/751,334  
Amdt. Dated 02/15/2004  
Reply to Office Action of 5/28/2004

1           24.     (Currently Amended) The access point of claim 23, wherein the current  
2 fragmentation threshold is determined by dividing a maximum fragmentation threshold by a  
3 divisional factor, the divisional factor is decremented when the transmission error factor is  
4 greater than the upper threshold, is incremented when the transmission error factor is less  
5 than the lower threshold and remains constant when the transmission error factor is less than  
6 the upper threshold and greater than the lower threshold ~~said message further includes a~~  
7 ~~specified fragmentation threshold to be used by said one or more wireless units.~~

1           25.     (Currently Amended) A machine readable medium including a software  
2 routine to control a logic circuit to transmit a message to one or more associated wireless  
3 unit, wherein said message includes (i) a first control data that causes said logic circuit to  
4 ~~implement enable request to send (RTS) and clear to send (RTS/CTS) data transmissions in~~  
5 transmitting data packets to said access point, and (ii) a second control data that causes said  
6 one or more associated wireless units to automatically adjust a fragmentation threshold in  
7 response to changes within the wireless transmission medium independent of whether or not  
8 RTS/CTS data transmissions are used and continue to adjust the fragmentation threshold  
9 based on a measured transmission error factor and continue to adjust the fragmentation  
10 threshold based on a measured transmission error factor.

1           26.     (Original) The machine readable medium of claim 25, wherein said message  
2 comprises a multicast data packet intended for said one or more associated wireless units.

1           27.     (Currently Amended) The machine readable medium of claim 25, wherein  
2 ~~said message further includes a second control data of said message includes a current~~  
3 fragmentation threshold being determined by the access point (i) comparing the transmission  
4 error factor to an upper threshold and reducing a prior fragmentation threshold to the current  
5 fragmentation threshold if the transmission error factor is greater than the upper threshold and  
6 (ii) comparing the transmission error factor to a lower threshold and increasing the prior  
7 fragmentation threshold to the current fragmentation threshold if the transmission error factor  
8 is less than the lower threshold ~~that causes said one or more wireless units to implement~~  
9 ~~fragmentation threshold in transmitting data packets to said access point.~~

Appl. No. 09/751,334  
Amdt. Dated 02/15/2004  
Reply to Office Action of 5/28/2004

1           28.     (Currently Amended) The machine readable medium of claim 27, wherein the  
2 current fragmentation threshold is determined by dividing a maximum fragmentation  
3 threshold by a divisional factor, the divisional factor is decremented when the transmission  
4 error factor is greater than the upper threshold, is incremented when the transmission error  
5 factor is less than the lower threshold and remains constant when the transmission error  
6 factor is less than the upper threshold and greater than the lower threshold~~said message~~  
7 ~~further includes a specified fragmentation threshold to be used by said one or more wireless~~  
8 ~~units.~~

1           29.     (Currently Amended) A wireless unit, comprising:  
2           a wireless transceiver to communicate with an access point via a wireless  
3 transmission medium; and  
4           a logic circuit to receive a message from said access point by way of said wireless  
5 transceiver, wherein said message includes (i) a first control data that causes a request to send  
6 (RTS) and clear to send ~~said one or more associated wireless units use request to send~~  
7 (RTS/CTS) and clear to send (CTS) in the transmission of data to said access point, and (ii) a  
8 second control data that causes automatic adjustment of a fragmentation threshold supported  
9 by said wireless unit in response to changes within the wireless transmission medium and  
10 independent of whether or not RTS/CTS data transmissions are used, said logic circuit to  
11 continue to adjust said fragmentation threshold through subsequent messages based on a  
12 measured transmission error factor.

1           30.     (Original) The wireless unit of claim 29, wherein said message comprises a  
2 multicast data packet.

1           31.     (Currently Amended) The wireless unit of claim 29, wherein said message  
2 ~~further includes a second control data of said message~~ includes a current fragmentation  
3 threshold being determined by after said access point (i) compares said transmission error  
4 factor to an upper threshold and reduces a prior fragmentation threshold to the current  
5 fragmentation threshold if the transmission error factor is greater than the upper threshold and  
6 (ii) compares the transmission error factor to a lower threshold and increases the prior  
7 fragmentation threshold to the current fragmentation threshold if the transmission error factor

Appl. No. 09/751,334  
Amdt. Dated 02/15/2004  
Reply to Office Action of 5/28/2004

8 ~~is less than the lower threshold that causes said logic circuit to implement fragmentation~~  
9 ~~threshold in transmitting data packets to said access point.~~

1 32. (Currently Amended) The wireless unit of claim ~~34~~29, wherein said second  
2 control data including a reduced fragmentation threshold provided in real-time in response to  
3 a change in the wireless transmission medium due to an increase in RF interferencemessage  
4 ~~further includes a specified fragmentation threshold to be used by said logic circuit in~~  
5 ~~implementing fragmentation threshold.~~

1 33-40. (Cancelled).

1 41. (Currently Amended) An access point having a logic circuit to transmit a  
2 message to one or more associated wireless unit, said message includes a first control data  
3 that causes said one or more associated wireless units to ~~implement~~adjust a fragmentation  
4 threshold in transmitting data packets to said access point and a second control data that  
5 causes said one or more wireless units to use request to send (RTS) and clear to send (CTS)  
6 in the transmission of data to said access point, said logic circuit to adjust of the  
7 fragmentation threshold being independent of whether or not the RTS and CTS are used in  
8 the data transmissions and to continue to adjust the fragmentation threshold through  
9 subsequent messages based on a measured transmission error factor.

1 42. (Previously Presented) The access point of claim 41, wherein said message is  
2 a multicast data packet intended for said one or more wireless units.

1 43. (Previously Presented) The access point of claim 41, wherein said message  
2 further includes a specified fragmentation threshold to be used by said one or more wireless  
3 units.

1 44. (Currently Amended) A machine readable medium including a software  
2 routine executed to control a logic circuit to transmit a message to one or more associated  
3 wireless unit, said message includes (i) a first control data that causes said one or more  
4 associated wireless units to use request to send (RTS) and clear to send (CTS) in the  
5 transmission of data to an access point, and (ii) a second control data that causes automatic  
6 adjustment of a fragmentation threshold supported by said wireless unit in response to

Appl. No. 09/751,334  
Amdt. Dated 02/15/2004  
Reply to Office Action of 5/28/2004

- 7 changes within the wireless transmission medium and independent of whether or not  
8 RTS/CTS data transmissions are used, said logic circuit to continue to adjust said  
9 fragmentation threshold through subsequent messages based on a measured transmission  
10 error factor.

1           45.     (Previously Presented) The machine readable medium of claim 44, wherein  
2 said message further includes a second control data that causes said one or more associated  
3 wireless units to implement fragmentation threshold in transmitting data packets to said  
4 access point.

1           46.     (Previously Presented) The machine readable medium of claim 45, wherein  
2 said message further includes a specified fragmentation threshold to be used by said one or  
3 more associated wireless units.